

REMARKS

Claims 1, 3-5, 8-10 and 13-28 have been examined and stand rejected. Claims 16, 22 and 23 are hereby canceled by this Amendment without prejudice or disclaimer.

Claim Objection

The Examiner objected to claim 1 indicating that the word “path” should be inserted after the last word of the claim.

Applicants submit the present amendment to claim 1 obviates this objection.

Claim Rejections - 35 U.S.C. § 102(b) - Yamamori et al.

The Examiner rejected claims 1, 5, 9-10, 13 and 16-18 as being anticipated by Yamamori et al. (US 5,957,127).

Yamamori relates to a capnometer fitted with an airway adaptor 1 (*see FIG. 12*). The adaptor includes a light source 3 and a light detector 7 for receiving light from the light source 3. (col. 1, lines 33-55). The airway adaptor 1 supports the light source 3 and the light detector 7 and includes a path for respiratory gas to pass through the light from the light source 3.

However, claim 1 recites, *inter alia*, a support member supporting the light-emitting element and the light-receiving element such that they are opposed to each other on a single optical axis, the support member being adapted to be located below the nostrils of a living body so as to oppose a face of the living body.

The Examiner contends the ends of the airway adaptor 1a and 1b may be placed just below the nostrils and that this corresponds to the recited supporting member. However, in contrast to the Examiner’s contention, Applicants respectfully submit end 1a is adapted to introduce the respiratory gas to the respiratory gas flow path not form the nostrils as recited, but rather, from the trachea (throat). (*See FIG. 4*). Further, the other end 1b is located above end 1a

and at a distance from the nostrils. Consequently, neither end 1a or the other end 1b correspond to the recite supporting member which is adapted to be located below the nostrils of a living body as to oppose a face of the living body, as recited in claim 1.

Thus, Applicants respectfully submit claim 1 is patentably distinguishable over Yamamori for at least this reason.

Additionally, Applicants submit that claim 5 and 9 are allowable, at least because of their dependency from claim 1.

Turning to the rejection of claim 10, Applicants submit Yamamori fails to disclose all the features recited therein. In particular, claim 10 as amended recites, *inter alia*, a support member supporting the light-emitting element and the light-receiving element such that they are opposed to each other on a single optical axis, the support member being disposed on an interior surface of the oxygen mask.

In particular, the Examiner contends end 1a and the other end 1b of Yamamori's airway adapted correspond to this feature. However, Applicants submit because end 1b is positioned on the exterior of the mask (*see* FIG. 3) and end 1a is not even associated with a mask, Yamamori fails to disclose all the features recited in claim 10.

Thus, Applicants submit claim 10 is patentably distinguishable over Yamamori for at least this reason.

Regarding claim 13, because this claim recites features similar to claim 1, i.e., an airway case adapted to be located below the nostrils of the living body, Applicants submit claim 13 is patentably distinguishable over Yamamori for the same reasons set forth above with regard to claim 1.

Regarding claims 17 and 18, Applicants submit these claims are allowable, at least because of their dependencies from claims 1 and 13.

Claim Rejections - 35 U.S.C. § 102(b) - Fertig et al.

The Examiner rejected claims 1, 5, 9, 13-14 and 16-18 as being anticipated by Fertig et al. (US 5,095,900).

Fertig relates to a respiration monitor responsive to respired air from an endotracheal tube. (col. 1, lines 44-50). The respiration monitor of Fertig aids the determination of whether the tube has been properly introduced into the trachea and the esophagus. (col. 1, lines 10-15).

Consequently, as Fertig discloses that its sensor assembly receives air from the endotracheal tube (inserted via a person's mouth), Applicants submit it fails to disclose "a first guide member adapted to introduce the respiratory gas from the nostrils to the respiratory gas flow," as recited in claim 1.

Furthermore, Fertig fails to disclose a support member supporting the light-emitting element and the light-receiving element which is adapted to be located below the nostrils of a living body so as to oppose a face of the living body. Specifically, while the Examiner contends Fertig's housing 14 corresponds to the recited supporting member, no portion of Fertig discloses that the housing 14 is adapted to be located below the nostrils of a living body to oppose a face of the living body. Rather, Fertig discloses that tubular adaptor 2 is fitted into the housing 14 and an end of an endotracheal tube. (col. 2, lines 12-15). Therefore, the housing 14 does not oppose the face of the living body at all, but to the contrary, is separated by the tubular adaptor 2.

Thus, Applicants submit claim 1 is patentably distinguishable over Fertig for at least this reason.

Regarding claim 13, because this claim recites features similar to those discussed above with regard to claim 1, Applicants submit claim 13 is patentably distinguishable for at least the same reasons set forth above with regard to claim 1.

Additionally, Applicants submit that claims 5, 9, 14 and 17-18 are allowable at least because of their dependencies from claims 1 and 13.

Claim Rejections - 35 U.S.C. § 102(b)

The Examiner rejected claims 1, 5, 9-10, 13-18, 20-24 and 26 as being anticipated by O'Neil et al. (US 6,044,843).

O'Neil relates to a respiratory gas analyzer sensor 3 which connects to a gas analyzer. (col. 4, lines 2-5). The device utilizes an infrared photo-emitter 11 and photo-detector 13 over windows 17 to detect carbon dioxide levels. (col. 4, lines 33-37). An adapter 4 including a cuvette 2 portion is used to prevent the patient's respiratory gases from coming into contact with the respiratory gas sensor 3. (col. 3, line 66 - col. 4, line 3). Further, O'Neil discloses that the cuvette is designed to connect in series with tubing used to connect a patient to a mechanical ventilator or anesthesia breathing circuit. (col. 4, lines 7-9).

Notably, as tubing is used to deliver the respiratory gases to the respiratory gas sensor 3, neither the sensor nor its elements are disposed below the patients nostrils nor on an exterior surface of a mask.

Therefore, Applicants respectfully submit O'Neil fails to disclose, at least, "a support member supporting the light-emitting element and the light-receiving element such that they are opposed to each other on a single optical axis, the support member being adapted to be located below the nostrils of a living body so as to oppose a face of the living body," as recited in claim 1.

In particular, because tubing is used to deliver the respiratory gases to the respiratory gas sensor 3, neither the sensor nor its elements are disposed below the patients nostrils nor on an exterior surface of a mask, or further, so as to oppose a face of the living body.

Thus, Applicants submit claim 1 is patentably distinguishable over O’Neil for at least this reason. Additionally, because claims 13 and 21 recite features similar to those discussed above with regard to claim 1, Applicants submit claims 13 and 21 are patentably distinguishable over O’Neil for at least the same reasons set forth above with regard to claim 1. Additionally, Applicants submit that claims 5, 9, 13-15, 17-18, 20, 22-24 and 26 are allowable at least because of their dependency.

Regarding claim 10, Applicants submit because O’Neil fails to disclose “an oxygen mask adapted to cover a part of the face of the living body to supply oxygen to the living body . . . the support member being disposed on an interior surface of the oxygen mask,” claim 10 is patentably distinguishable over O’Neil.

In particular, O’Neil fails to disclose any oxygen mask at all.

Thus, Applicants submit claim 10 is patentably distinguishable over O’Neil for at least this reason.

Claim Rejections - 35 U.S.C. § 103(a)

The Examiner rejected claims 3, 8 and 19 under § 103(a) as being unpatentable over Yamamori, Fertig or O’Neil, in further view of Dietz (US 5,005,571).

Dietz relates to a mouth nose mask for covering the mouth of a person and a nasal cannula used to sense inhalation. (col. 1, lines 20-30). Additionally, Dietz discloses a optoelectric inhalation sensor. (col. 6, lines 19-30; *see FIG.15*).

The Examiner contends that Yamamori, Fertig or O'Neil each disclose most of the features recited in claims 3, 8 and 19, but concedes they do not disclose the use of a mask with ear straps nor a guide member with nasal prongs. To compensate for this deficiency, the Examiner applies Dietz as disclosing a nasal cannula with prongs used with or without a mouth nose mask. (*citing* FIGS. 1 & 2; col. 2, lines 32-43).

However, because Dietz fails to compensate for the above noted deficiencies of Yamamori, Fertig and O'Neil as applied to claims 1 and 13, Applicants submit claims 3, 8 and 19 are allowable, at least because of their dependency.

Claim Rejections - 35 U.S.C. § 103(a)

The Examiner rejected claims 1, 3-5, 8-10, 13, 15-21 and 23-28 as being unpatentable over O'Toole (US 6,379,312) in view of Passaro et al. (US 4,423,739).

O'Toole relates to an end tidal carbon dioxide device coupled to a nasal cannula and oral tubes, which connect to the end tidal carbon dioxide analyzer by the use of a common outlet duct 26. (col. 3, lines 50-67; *see* FIG. 3). The sensing device is not depicted in proximity to either the nasal cannula or the oral tubes.

Passaro relates to an end tidal carbon dioxide gas analyzer which utilizes infrared energy from a source 11 transmitted through a gas sample cell 17 to a detector 21. The infrared energy is transmitted through windows 29. (col. 2, lines 22-34). Passaro further discloses that the patient's breath is conveyed to the inlet to the sample cell 17 by a suitable mask connection (not shown).

Applicants submit even if O'Toole and Passaro could be combined as suggested by the Examiner the applied combination fails to disclose, at least, "a support member supporting the light-emitting element and the light-receiving element such that they are opposed to each other

on a single optical axis, the support member being adapted to be located below the nostrils of a living body so as to oppose a face of the living body," as recited in claim 1.

In particular, no support member is disclosed by either reference which is located below the nostrils of the living body so as to oppose a face.

Thus, Applicants submit claim 1 is patentably distinguishable over the applied combination for at least this reason. Because claims 13 and 21 recite a similar feature, Applicants submit that these claims are allowable over the applied combination for the same reasons as claim 1.

Regarding claim 10 - because neither O'Toole nor Passaro disclose "a support member supporting the light emitting element and the light receiving element such that they are opposed to each other on a single optical axis, the support member being disposed on an interior surface of the oxygen mask," Applicants submit the applied combination fails to teach or suggest all the recited features. Specifically, neither reference would lead one of ordinary skill to place a support member on the interior surface of a mask. Rather, O'Toole and Passaro fail to contemplate any such feature.

Thus, Applicants submit claim 10 is allowable for at least this reason.

Regarding claims 3-5, 8-9, 15, 17-20 and 23-28, Applicants submit these claims are allowable at least because of their dependencies from claims 1, 10, 13 and 21.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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